

ABSTRACT

An IP communication network system has a plurality of autonomous systems, configuring IP networks of domains independent of each other, for performing interior- and exterior-forwarding of IP packets. The plurality of autonomous systems include a plurality of border relay devices positioned at borders between the IP networks. Each of the plurality of border relay devices includes a discarding unit for discarding, if the IP packet forwarded is an unauthorized intrusion packet, this unauthorized packet when detecting a re-intrusion on the basis of filtering information for detecting the re-intrusion of the unauthorized packet, and a distribution unit for distributing the filtering information to all other border relay devices within the same autonomous system.